

Amendments to the Claims

1. (Currently Amended) A multiple decoding apparatus receiving a signal composed of a plurality of encoded data for simultaneously decoding two or more of the data, said apparatus comprising:

a reproduction controller for outputting various types of control information related to decoding and reproduction of the data;

a data extractor receiving the signal for extracting the two or more data designated by the control information;

a buffer storing the data extracted by said data extractor;

a buffer manager for controlling said buffer in accordance with the control information for said buffer;

a data flow controller for distributing the data stored in said buffer for each type and transferring the data in accordance with provided transfer conditions;

a plurality of separate buffers for respectively storing the data distributed and transferred by said data flow controller;

a separate buffer manager for controlling outputs of said plurality of separate buffers so as to be associated with each other in accordance with information for specifying said plurality of separate buffers;

a plurality of decoders respectively corresponding to said plurality of separate buffers for decoding the data stored in said separate buffers and outputting the decoded data; and

a decoding controller for selecting a separate buffer and a decoder, which are used for the decoding, from among said plurality of separate buffers and said plurality of decoders in accordance with the control information, and outputting information related to said separate buffer selected by said decoding controller, the transfer conditions based on said separate buffer selected by said decoding controller, and an instruction to start the decoding, respectively, to said separate buffer manager, said data flow controller, and said decoder selected by said decoding controller,

wherein said buffer manager outputs, when said buffer becomes full of the data, an overflow notification to said reproduction controller,

wherein said reproduction controller outputs, upon receipt of said overflow notification, an instruction to stop the data extraction to said data extractor, and outputs an initialization instruction to said decoding controller,

wherein said decoding controller outputs, upon receipt of the initialization instruction from said reproduction controller, an instruction to initialize all said plurality of separate buffers to said separate buffer manager, outputs to said buffer manager an instruction to initialize said buffer, and respectively outputs instructions to stop the decoding to all said plurality of decoders,

wherein said buffer manager initializes said buffer in accordance with the initialization instruction from said decoding controller,

wherein said separate buffer manager initializes all said plurality of separate buffers in accordance with the initialization instruction from said decoding controller, and

all the processing which is stopped is resumed after all said buffer and said plurality of separate buffers are initialized.

Claim 2 (Cancelled)

Claim 3 (Previously presented) The multiple decoding apparatus according to claim 1, wherein

said separate buffer manager outputs, when a specific separate buffer becomes full of the data, an overflow notification that the specific separate buffer overflows to said decoding controller,

said decoding controller outputs, upon receipt of the overflow notification that said specific separate buffer overflows, an instruction to stop the data transfer to said specific separate buffer to said data flow controller, outputs an instruction to stop the decoding to a decoder corresponding to said specific separate buffer, and outputs to said separate buffer manager an instruction to initialize said specific separate buffer,

said separate buffer manager initializes said specific separate buffer in accordance with the initialization instruction from said decoding controller, and

all the processing which is stopped is resumed after said specific separate buffer is initialized.

4. (Previously presented) The multiple decoding apparatus according to claim 1, wherein

said separate buffer manager outputs, when a specific separate buffer becomes full of the data, an overflow notification that said specific separate buffer overflows to said decoding controller,

said decoding controller outputs, upon receipt of the overflow notification that said specific separate buffer overflows, an instruction to discard the data directed toward said specific separate buffer to said data flow controller, outputs an instruction to stop the decoding to a decoder corresponding to said specific separate buffer, and outputs an instruction to initialize said specific separate buffer to said separate buffer manager,

said separate buffer manager initializes said specific separate buffer in accordance with the initialization instruction from said decoding controller, and

all the processing which is stopped is resumed, and the discard of said data is released after said specific separate buffer is initialized.

Claim 5 (Currently Amended) A multiple decoding method, in which a signal composed of a plurality of encoded data is inputted, to simultaneously decode two or more of the data, comprising:

inputting the signal and extracting the two or more data to be decoded and reproduced;

storing the extracted data in a buffer;

distributing the data stored in the buffer for each type and respectively storing the data in a plurality of separate buffers;

controlling output of data stored in the plurality of separate buffers such that the data stored in the plurality of separate buffers are associated with each other; and

decoding, responsive to said controlling, the data stored in the plurality of separate buffers and outputting the decoded data,

wherein, when said buffer becomes full of the data:

stopping extraction and decoding of the data;

initializing all said buffer and said plurality of separate buffers; and

resuming all the processing which is stopped after all said buffer and said plurality of separate buffers are initialized.

Claim 6 (Cancelled)

Claim 7 (Previously presented) The multiple decoding method according to claim 5, further comprising, when a specific separate buffer becomes full of the data:

- stopping the distribution of the data into the specific separate buffer and the decoding of the data stored in the specific separate buffer;

- initializing the specific separate buffer; and

- resuming all the processing which is stopped after the specific separate buffer is initialized.

Claim 8 (Previously presented) The multiple decoding method according to claim 5, further comprising, when a specific separate buffer becomes full of the data:

- discarding the data directed toward the specific separate buffer;

- stopping said decoding of the data stored in the specific separate buffer;

- initializing the specific separate buffer; and

- resuming all the processing which is stopped after the specific separate buffer is initialized, and releasing the discard of the data.